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RAW SEQUENCE LISTING   DATE: 04/22/2003
PATENT APPLICATION: **US/09/848,664A**   TIME: 14:56:52

Input Set : **N:\Crf3\RULE60\09848664.raw.txt**
Output Set: **N:\CRF4\04222003\I848664A.raw**

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 1 <110> APPLICANT: Sakiyama-Elbert, Shelly E.
 2       Hubbell, Jeffrey A.
 3 <120> TITLE OF INVENTION: Controlled Release of Non-Heparin Binding Growth
 4       Factors from Heparin Containing Matrices
 5 <130> FILE REFERENCE: ETH 108
 6 <140> CURRENT APPLICATION NUMBER: US/09/848,664A
 7 <141> CURRENT FILING DATE: 2001-05-03
 8 <150> PRIOR APPLICATION NUMBER: US/09/298,084A
 9 <151> PRIOR FILING DATE: 1999-04-22
10 <160> NUMBER OF SEQ ID NOS: 31
11 <170> SOFTWARE: PatentIn Ver. 2.1
13 <210> SEQ ID NO: 1
14 <211> LENGTH: 14
15 <212> TYPE: PRT
16 <213> ORGANISM: Homo sapiens
17 <220> FEATURE:
18 <221> NAME/KEY: MOD_RES
19 <222> LOCATION: (2)
20 <223> OTHER INFORMATION: Xaa is bAla (Beta Alanine)
21 <400> SEQUENCE: 1
22       Lys Xaa Phe Ala Lys Leu Ala Ala Arg Leu Tyr Arg Lys Ala
23         1               5                   10
25 <210> SEQ ID NO: 2
26 <211> LENGTH: 8
27 <212> TYPE: PRT
28 <213> ORGANISM: Homo sapiens
29 <400> SEQUENCE: 2
30       Tyr Lys Lys Ile Ile Lys Lys Leu
31         1               5
33 <210> SEQ ID NO: 3
34 <211> LENGTH: 14
35 <212> TYPE: PRT
36 <213> ORGANISM: Homo sapiens
37 <400> SEQUENCE: 3
38       Lys His Lys Gly Arg Asp Val Ile Leu Lys Lys Asp Val Arg
39         1               5                   10
41 <210> SEQ ID NO: 4
42 <211> LENGTH: 14
43 <212> TYPE: PRT
44 <213> ORGANISM: Homo sapiens
45 <220> FEATURE:
46 <221> NAME/KEY: MOD_RES
47 <222> LOCATION: (2)
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W--> 22

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                    RAW SEQUENCE LISTING            DATE: 04/22/2003
                    PATENT APPLICATION:  US/09/848,664A      TIME: 14:56:52

                    Input Set : N:\Crf3\RULE60\09848664.raw.txt
                    Output Set : N:\CRF4\04222003\I848664A.raw

       48 <223> OTHER INFORMATION: Xaa is bALA (Beta Alanine)
       49 <400> SEQUENCE: 4
W-->   50      Arg Xaa Phe Ala Arg Leu Ala Ala Arg Leu Tyr Arg Arg Ala
       51       1           5               10
       53 <210> SEQ ID NO: 5
       54 <211> LENGTH: 12
       55 <212> TYPE: PRT
       56 <213> ORGANISM: Homo sapiens
       57 <400> SEQUENCE: 5
       58      Lys Asp Pro Lys Arg Leu Tyr Arg Ser Arg Lys Tyr
       59       1           5               10
       61 <210> SEQ ID NO: 6
       62 <211> LENGTH: 11
       63 <212> TYPE: PRT
       64 <213> ORGANISM: Homo sapiens
       65 <400> SEQUENCE: 6
       66      Cys Val Leu Ser Arg Lys Ala Val Arg Arg Ala
       67       1           5               10
       69 <210> SEQ ID NO: 7
       70 <211> LENGTH: 10
       71 <212> TYPE: PRT
       72 <213> ORGANISM: Homo sapiens
       73 <400> SEQUENCE: 7
       74      Cys Ala Leu Ser Arg Lys Ile Gly Arg Thr
       75       1           5               10
       77 <210> SEQ ID NO: 8
       78 <211> LENGTH: 9
       79 <212> TYPE: PRT
       80 <213> ORGANISM: Homo sapiens
       81 <400> SEQUENCE: 8
       82      Cys Thr Leu Thr Ile Lys Arg Gly Arg
       83       1           5
       85 <210> SEQ ID NO: 9
       86 <211> LENGTH: 70
       87 <212> TYPE: PRT
       88 <213> ORGANISM: Homo sapiens
       89 <400> SEQUENCE: 9
       90      Ala Leu Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn Cys Cys
       91       1           5               10                  15
       92      Val Arg Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp Lys Trp
       93                  20              25              30
       94      Ile His Glu Pro Lys Gly Tyr His Ala Asn Phe Cys Leu Gly Pro Cys
       95              35              40              45
       96      Pro Tyr Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu Ala Leu
       97          50              55              60
       98      Tyr Asn Gln His Asn Pro
       99       65              70
      101 <210> SEQ ID NO: 10
      102 <211> LENGTH: 70
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Output Set: **N:\CRF4\04222003\I848664A.raw**

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103  <212> TYPE: PRT
104  <213> ORGANISM: Homo sapiens
105  <400> SEQUENCE: 10
106       Ala Leu Asp Ala Ala Tyr Cys Phe Arg Asn Val Gln Asp Asn Cys Cys
107       1               5                   10                  15
108       Leu Arg Pro Leu Tyr Ile Asp Phe Lys Arg Asp Leu Gly Trp Lys Trp
109                   20                  25                  30
110       Ile His Glu Pro Lys Gly Tyr Asn Ala Asn Phe Cys Ala Gly Ala Cys
111                   35                  40                  45
112       Pro Tyr Leu Trp Ser Ser Asp Thr Gln His Ser Arg Val Leu Ser Leu
113           50                  55                  60
114       Tyr Asn Thr Ile Asn Pro
115           65                  70
117  <210> SEQ ID NO: 11
118  <211> LENGTH: 70
119  <212> TYPE: PRT
120  <213> ORGANISM: Homo sapiens
121  <400> SEQUENCE: 11
122       Ala Leu Asp Thr Asn Tyr Cys Phe Arg Asn Leu Glu Glu Asn Cys Cys
123       1               5                   10                  15
124       Val Arg Pro Leu Tyr Ile Asp Phe Arg Gln Asp Leu Gly Trp Lys Trp
125                   20                  25                  30
126       Val His Glu Pro Lys Gly Tyr Tyr Ala Asn Phe Cys Ser Gly Pro Cys
127                   35                  40                  45
128       Pro Tyr Leu Arg Ser Ala Asp Thr Thr His Ser Thr Val Leu Gly Leu
129           50                  55                  60
130       Tyr Asn Thr Leu Asn Pro
131           65                  70
133  <210> SEQ ID NO: 12
134  <211> LENGTH: 42
135  <212> TYPE: PRT
136  <213> ORGANISM: Homo sapiens
137  <400> SEQUENCE: 12
138       Gly Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu
139       1               5                   10                  15
140       Pro Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser
141                   20                  25                  30
142       Asn Met Ile Val Arg Ser Cys Lys Cys Ser
143                   35                  40
145  <210> SEQ ID NO: 13
146  <211> LENGTH: 42
147  <212> TYPE: PRT
148  <213> ORGANISM: Homo sapiens
149  <400> SEQUENCE: 13
150       Glu Ala Ser Ala Ser Pro Cys Cys Val Ser Gln Asp Leu Glu Pro Leu
151       1               5                   10                  15
152       Thr Ile Leu Tyr Tyr Ile Gly Lys Thr Pro Lys Ile Glu Gln Leu Ser
153                   20                  25                  30
154       Asn Met Ile Val Lys Ser Cys Lys Cys Ser
```

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Input Set : **N:\Crf3\RULE60\09848664.raw.txt**
Output Set: **N:\CRF4\04222003\I848664A.raw**

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155                    35                  40
157 <210> SEQ ID NO: 14
158 <211> LENGTH: 42
159 <212> TYPE: PRT
160 <213> ORGANISM: Homo sapiens
161 <400> SEQUENCE: 14
162      Glu Ala Ser Ala Ser Pro Cys Cys Val Pro Gln Asp Leu Glu Pro Leu
163       1               5                  10                  15
164      Thr Ile Leu Tyr Tyr Val Gly Arg Thr Pro Lys Val Glu Gln Leu Ser
165                  20                  25                  30
166      Asn Met Val Val Lys Ser Cys Lys Cys Ser
167                  35                  40
169 <210> SEQ ID NO: 15
170 <211> LENGTH: 294
171 <212> TYPE: PRT
172 <213> ORGANISM: Homo sapiens
173 <400> SEQUENCE: 15
174      Phe Ser Gln Ser Phe Arg Glu Val Ala Gly Arg Phe Leu Ala Ser Glu
175       1               5                  10                  15
176      Ala Ser Thr His Leu Leu Val Phe Gly Met Glu Gln Arg Leu Pro Pro
177                  20                  25                  30
178      Asn Ser Glu Leu Val Gln Ala Val Leu Arg Leu Phe Gln Glu Pro Val
179                  35                  40                  45
180      Pro Gln Gly Ala Leu His Arg His Gly Arg Leu Ser Pro Ala Ala Pro
181              50                  55                  60
182      Lys Ala Arg Val Thr Val Glu Trp Leu Val Arg Asp Asp Gly Ser Asn
183          65                  70                  75                  80
184      Arg Thr Ser Leu Ile Asp Ser Arg Leu Val Ser Val His Glu Ser Gly
185                  85                  90                  95
186      Trp Lys Ala Phe Asp Val Thr Glu Ala Val Asn Phe Trp Gln Gln Leu
187                  100                 105                 110
188      Ser Arg Pro Pro Glu Pro Leu Leu Val Gln Val Ser Val Gln Arg Glu
189              115                 120                 125
190      His Leu Gly Pro Leu Ala Ser Gly Ala His Lys Leu Val Arg Phe Ala
191              130                 135                 140
192      Ser Gln Gly Ala Pro Ala Gly Leu Gly Glu Pro Gln Leu Glu Leu His
193          145                 150                 155                 160
194      Thr Leu Asp Leu Arg Asp Tyr Gly Ala Gln Gly Asp Cys Asp Pro Glu
195                  165                 170                 175
196      Ala Pro Met Thr Glu Gly Thr Arg Cys Cys Arg Gln Glu Met Tyr Ile
197                  180                 185                 190
198      Asp Leu Gln Gly Met Lys Trp Ala Lys Asn Trp Val Leu Glu Pro Pro
199              195                 200                 205
200      Gly Phe Leu Ala Tyr Glu Cys Val Gly Thr Cys Gln Gln Pro Pro Glu
201          210                 215                 220
202      Ala Leu Ala Phe Asn Trp Pro Phe Leu Gly Pro Arg Gln Cys Ile Ala
203          225                 230                 235                 240
204      Ser Glu Thr Ala Ser Leu Pro Met Ile Val Ser Ile Lys Glu Gly Gly
205                  245                 250                 255
```

```
206        Arg Thr Arg Pro Gln Val Val Ser Leu Pro Asn Met Arg Val Gln Lys
207                    260                 265                 270
208        Cys Ser Cys Ala Ser Asp Gly Ala Leu Val Pro Arg Arg Leu Gln His
209                    275                 280                 285
210        Arg Pro Trp Cys Ile His
211                    290
213 <210> SEQ ID NO: 16
214 <211> LENGTH: 73
215 <212> TYPE: PRT
216 <213> ORGANISM: Homo sapiens
217 <400> SEQUENCE: 16
218        Ser Pro Asp Lys Gln Met Ala Val Leu Pro Arg Arg Glu Arg Asn Arg
219         1               5                  10                  15
220        Gln Ala Ala Ala Ala Asn Pro Glu Asn Ser Arg Gly Lys Gly Arg Arg
221                     20                  25                  30
222        Gly Gln Arg Gly Lys Asn Arg Gly Cys Val Leu Thr Ala Ile His Leu
223                     35                  40                  45
224        Asn Val Thr Asp Leu Gly Leu Gly Tyr Glu Thr Lys Glu Glu Leu Ile
225                 50                  55                  60
226        Phe Arg Tyr Cys Ser Gly Ser Cys Asp
227         65                  70
229 <210> SEQ ID NO: 17
230 <211> LENGTH: 73
231 <212> TYPE: PRT
232 <213> ORGANISM: Homo sapiens
233 <400> SEQUENCE: 17
234        Leu Gly Ala Arg Pro Cys Gly Leu Arg Glu Leu Glu Val Arg Val Ser
235         1               5                  10                  15
236        Glu Leu Gly Leu Gly Tyr Ala Ser Asp Glu Thr Val Leu Phe Arg Tyr
237                     20                  25                  30
238        Cys Ala Gly Ala Cys Glu Ala Ala Arg Val Tyr Asp Leu Gly Leu
239                     35                  40                  45
240        Arg Arg Leu Arg Gln Arg Arg Arg Leu Arg Arg Glu Arg Val Arg Ala
241                 50                  55                  60
242        Gln Pro Cys Cys Arg Pro Thr Ala Tyr
243         65                  70
245 <210> SEQ ID NO: 18
246 <211> LENGTH: 61
247 <212> TYPE: PRT
248 <213> ORGANISM: Homo sapiens
249 <400> SEQUENCE: 18
250        Ala Ala Glu Thr Thr Tyr Asp Lys Ile Leu Lys Asn Leu Ser Arg Asn
251         1               5                  10                  15
252        Arg Arg Leu Val Ser Asp Lys Val Gly Gln Ala Cys Cys Arg Pro Ile
253                     20                  25                  30
254        Ala Phe Asp Asp Asp Leu Ser Phe Leu Asp Asp Asn Leu Val Tyr His
255                     35                  40                  45
256        Ile Leu Arg Lys His Ser Ala Lys Arg Cys Gly Cys Ile
257                 50                  55                  60
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 04/22/2003
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Input Set : **N:\Crf3\RULE60\09848664.raw.txt**
Output Set: **N:\CRF4\04222003\I848664A.raw**

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 2
Seq#:4; Xaa Pos. 2

VERIFICATION SUMMARY   ·   DATE: 04/22/2003
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Input Set : **N:\Crf3\RULE60\09848664.raw.txt**
Output Set: **N:\CRF4\04222003\I848664A.raw**

L:22 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0